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(54) **COMPOSITIONS AND METHODS INCLUDING A RECOMBINANT HUMAN MAB THAT PROMOTES CNS REMYELINATION**

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(58) **Field of Classification Search**
None
See application file for complete search history.

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(57) **ABSTRACT**

Antibodies, and particularly human antibodies, are disclosed that demonstrate activity in the treatment of demyelinating diseases as well as other diseases of the central nervous system that are of viral, bacterial or idiopathic origin, including neural dysfunction caused by spinal cord injury. Neuromodulatory agents are set forth that include and comprise a material selected from the group consisting of an antibody capable of binding structures or cells in the central nervous system, a peptide analog, a hapten, active fragments thereof, agonists thereof, mimics thereof, monomers thereof and combinations thereof. Methods are described for treating demyelinating diseases, and diseases of the central nervous system of humans and domestic animals, using polyclonal IgM antibodies and human monoclonal antibodies sHIgm22(LYM 22), sHIgm46(LYM46) ebvHIgM MSI19D10, CB2bG8, AKJR4, CB2iE12, CB2iE7, MSI19E5 and MSI10E10, active fragments thereof and the like. The invention also extends to the use of human antibodies, fragments, peptide derivatives and like materials, and their use in above referenced therapeutic applications, and to pharmaceutical compositions containing them, that may be administered in desirably low doses to treat conditions involving demyelination and to promote remyelination.

18 Claims, 6 Drawing Sheets